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EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 11282954 ✓
PUBLICATION DATE : 15-10-99

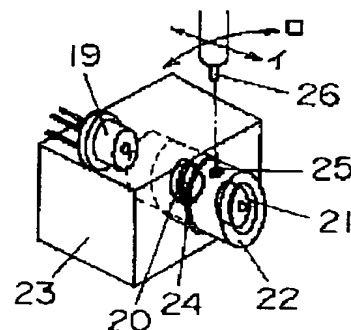
APPLICATION DATE : 27-03-98
APPLICATION NUMBER : 10080849

APPLICANT : MATSUSHITA ELECTRIC IND CO LTD;

INVENTOR : NAKASUJI AKIO;

INT.CL. : G06K 7/10

TITLE : LASER MODULE AND BAR CODE
READER



ABSTRACT : PROBLEM TO BE SOLVED: To vertically match the longitudinal direction of an ellipse against the scanning direction of a laser beam even when an elliptical beam form is shaped by fixing a laser beam emitting means and adjusting a base to store the beam emitting means and also the position and direction of the optical axis of an optical element fixing means.

SOLUTION: A laser diode 19 is fixed on a base 23, and an optical element holder 22 is housed in a hole 24. Then the holder 22 whose adjusting jig pin 26 is set at a recess 25 is moved in its optical axis direction with an arrow to adjust the position and size of the waist of the laser beam to be generated by adjusting the distance of a lens 20 against the diode 19. Then the holder 22 is turned around its optical axis with an arrow and the section shape of an elliptical laser beam is turned to vertically adjust the longitudinal direction of the elliptical beam against the scanning direction of the laser beam. In such a case, the holder 22 restricts the movements and turns excluding the movement caused toward its optical axis and the turn caused around its optical axis, respectively.

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